DOCUMENT RESUME

ED 398 754 FL 024 056

AUTHOR Whyte, Shona
TITLE Acquisition in Context: The Discourse Domain Hypothesis of Interlanguage Variation.
PUB DATE 94
NOTE 28p.; In: Pragmatics and Language Learning. Monograph Series, Volume 5, p289-315, 1994; see FL 014 038.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS College Students; Discourse Analysis; *English (Second Language); Higher Education; Interlanguage; Interviews; *Knowledge Level; *Language Patterns; Language Research; Language Usage; *Linguistic Theory; Majors (Students); *Pragmatics; Second Language Learning; Transfer of Training
IDENTIFIERS *Discourse Domain Hypothesis; *Domain Knowledge

ABSTRACT

This study tested a refined version of the discourse domain hypothesis, which defines the discourse domain as a topic area in which second language learners demonstrate extensive, current, and important knowledge, including both cognitive and affective dimensions. The study tested the results of previous studies, which showed that learners show enhanced performance on discourse domain topics. Subjects were eight learners of English as a Second Language (ESL) in an intensive college-level ESL program. Four (invested subjects) were interviewed on major field and neutral topics, and four (uninvested subjects) were interviewed on two neutral topics. Students' discourse was analyzed for fluency, syntactic development, and discourse organization. Results indicated enhanced performance by one invested subject on all three measures on the major field topics. The remaining three invested subjects produced ambiguous results, whereas the control group showed little variation across topics. It is concluded that the study provides a measure of support for the discourse domain hypothesis, and lays the foundation for further research in the area of topic-related language use variation. Contains 17 references. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Pragmatics and Language Learning
Monograph Series, Volume 5, 1994

ACQUISITION IN CONTEXT:
THE DISCOURSE DOMAIN HYPOTHESIS OF INTERLANGUAGE VARIATION

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Shona Whyte
Indiana University

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Laurence F Barton
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

ED 398 754

ABSTRACT

This study tests a refined version of the discourse domain hypothesis (Selinker & Douglas, 1985). It defines the discourse domain as a topic area in which learners demonstrate extensive, current, and important knowledge, a definition which includes both a cognitive dimension (insofar as the domain is a particularly well-developed schema) and an affective dimension (in the sense that the speaker's orientation to a domain topic shows high investment). Previous studies suggest that learners show enhanced performance on discourse domain topics, and the present study is designed to test this prediction.

Four ESL learners (*invested* subjects) were interviewed on major field and neutral topics, and their performance was compared with that of a control group of 4 learners (*uninvested* subjects) on two neutral topics. Data were analyzed for fluency, syntactic development, and discourse organization. Results indicate enhanced performance by one invested subject on all three measures on the major field topic. The remaining three invested subjects produced ambiguous results, whereas the control group showed little variation across topics.

The study therefore provides a measure of support for the discourse domain hypothesis and lays the foundations for further research in the area of topic-related variation.

FL024656

According to the discourse domain hypothesis (Selinker & Douglas, 1985), learner language varies relative to topic of discourse, specifically in relation to topic areas in which learners are knowledgeable, on which they talk frequently, and which are important to them. The hypothesis has so far proved almost as untestable as it is intuitively appealing. It lacks both theoretical foundation and falsifiable predictions, and key concepts, including the *discourse domain* itself, have proven resistant to definition and operationalization. Yet the possibility of proposing a coherent theory to explain interlanguage variation among subject-specialist sec-

BEST COPY AVAILABLE

ond language learners remains seductive. For this reason, the discourse domain hypothesis seems worth pursuing, and this paper reports on a study designed to test a refined version of the hypothesis.

Little empirical support for the discourse domain hypothesis is yet available, although a number of second language studies of topic-related variation have produced results which can be interpreted in the light of the hypothesis. Selinker and Douglas conducted a series of case studies involving interviews of nonnative graduate students on work and life domain topics. They showed that subjects employed different communicative strategies in talk on their major fields than in talk on their own lives or culture (Selinker & Douglas, 1985, 1987b, 1989). For example, one learner appeared competent and confident in his work domain, able to circumvent vocabulary gaps and to correct his native interlocutor, but seemed less motivated to find vocabulary items and more deferential in life domain talk (Selinker & Douglas, 1985). These studies suggest that second language variation occurs across different discourse domains and can be perceived at the level of communication strategies and discourse or rhetorical organization.

Research within the language for specific purposes (LSP) paradigm has also focused on the relationship between content knowledge and linguistic performance. This orientation is illustrated in the a special issue of *English for Specific Purposes Journal* devoted to discourse domain research in an LSP context (Selinker & Douglas, 1987a). One study examined the French production of a Flemish undergraduate student in economics, who had been exposed to French through an LSP class oriented toward her major (Cornu & Delahaye, 1987). The learner exhibited more complex and varied syntactic forms and more flexible communication strategies when she talked about economics than when she discussed her hobbies and interests. In another study involving undergraduate LSP students in Zaire, the high frequency of low-level language errors found in second year economics students' essays on a major field topic was attributed to failure on the students' part to have developed a mature discourse domain for their major field (Skelton & Pindi, 1987). When the cognitive framework for a topic area is not yet in place, learners cannot rely on a solid knowledge base to inform second language production, and the extra resources needed to process new knowledge detract attention from form. Thus, while domain-related differences may appear at fairly early stages of knowledge development, the process of development of that knowledge may obscure domain-related variation and even obstruct second language production.

Studies of more advanced students and practicing professionals suggest that a high level of content knowledge in a particular field can compensate for restricted second language competence. Briggs (1987) examined the oral production of students in a graduate architectural design course during the final juried presentation, which simulated an architect's professional presentation to a client. Instructor-judges were more collegial toward an advanced student who had had several years of professional experience in his home country, and they rated his English as adequate, although Briggs noted that he "appeared not to exhibit an extensive verbal repertoire" (p. 155). The conclusion that native-speaker tolerance of nontargetlike production may be related to perceptions of content expertise finds its corollary in St. John's investigation of the written production of Spanish scientists enrolled in an ESP writing seminar (St. John, 1987). The author found that these academics had difficulty accepting that their content control over their work domain did not extend to its expression in English, and that they resented

editorial suggestions by native-speaking colleagues which went beyond syntax to the level of discourse and meaning. If native speakers are more favorably disposed to nonnative speakers who show competence in their field of expertise (as Briggs, 1987, suggested), nonnative experts may be less open to native-speaker input in this area. These two studies suggest that professional expertise can reduce motivation for interlanguage development: If native speakers can communicate reasonably successfully with their nonnative colleagues, then such learners have no incentive to move closer to target, and they may even perceive second language assistance as a threat to their professional face.

Authority by virtue of expertise also formed the focus of a language variation study by Woken and Swales (1989). Subjects were three dyads each formed by a nonnative computer science graduate student who instructed a nonspecialist American undergraduate in the use of a wordprocessing program. The nonnative speakers were found to talk more than their interlocutors, giving more directions and explanations and making more inquiries and corrections. At no time did they request or receive linguistic help. These results suggest that expertise can lend nonnative speakers greater authority and promote enhanced language production.

In related work on native-nonnative graduate student dyads talking on work domain and neutral topics, Zuengler and Bent reported similar findings (Zuengler, 1989; Zuengler & Bent, 1991). By manipulating the relative knowledge of interlocutors to produce dyads where either the native or the nonnative speaker was expert in his major field domain (or both speakers had equal knowledge), these studies tested the effect of content expertise on interaction. They found that greater content knowledge canceled out any bias toward native speaker monopolization of talk, on measures of amount of talk and dominance behavior such as interruptions and topic moves. These studies also compared talk on the work domain topic with talk on a neutral topic, food in speakers' own cultures. In practice, however, the food topic appeared to elicit domain talk from the nonnative speakers, because participants tended to focus on the culinary traditions of the nonnative speaker's country, which were unfamiliar to the American speaker, rather than on American traditions, which were familiar to both (Zuengler & Bent, 1991). The elicitation of neutral or nondomain talk remains a problem in discourse domain research.

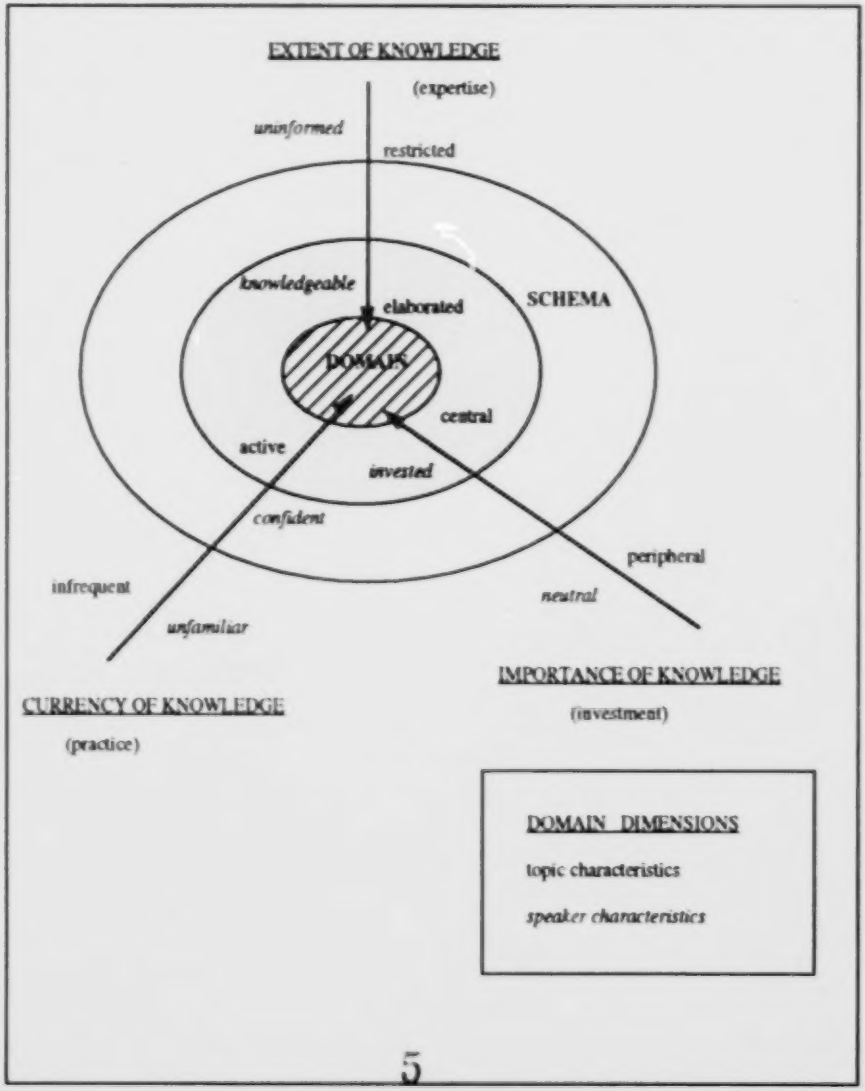
These studies reveal a number of sources of variation related to the concept of discourse domain. One factor is clearly the extent of the content area knowledge possessed by speakers: This expertise may lead to more talk, more overt dominance behavior, and may override questions of intelligibility and grammatical accuracy which can surface in native-nonnative interaction on topics where the learner has less authority. Many of the studies cited above show language performance to be enhanced in talk on domain topics. Importance to the speaker is clearly another key element of the discourse domain construct, because speakers are more motivated to talk and indeed to appear competent on topics which are meaningful to them and which play a significant role in their lives. Finally these studies suggest that currency, or the frequency with which a speaker interacts on a given topic, is also relevant to the discourse domain hypothesis. Learners may perform better on discourse domain topics because they have practiced interacting in the target language on those topics.

Theoretical framework

The findings of these recent studies of topic-related variation provide a promising start-

ing point for a refined definition of the discourse domain which places the construct within a wider theoretical framework and provides a basis for predictions within the discourse domain hypothesis. Because topic knowledge is clearly an essential component of the discourse domain, it seems appropriate to relate the domain to the established concept of *schema*, or dynamic knowledge structure (Bartlett, 1932). The discourse domain can be viewed as a particularly well-developed schema, which is *elaborated*, in the sense that it contains a substantial amount of information, *central* to a speaker's network of interconnected schemata, and conse-

Figure 1: Domain dimensions, with topic and speaker characteristics



quently *active*, or frequently invoked. However, in its original conception, the notion of discourse domain encompasses more than topic area. It is not simply a topic of expertise for speakers, but one which is important to them. An affective component must accordingly be added to the cognitive dimension to account for the particular speaker orientation to discourse domain topics. Domain speakers can therefore be characterized as *knowledgeable*, on the basis of their expertise in the topic, *confident*, due to practice effects related to the currency of the topic, and *invested*, because of the central position occupied by this topic in their lives.

These cognitive and affective dimensions of the discourse domain are shown in Figure 1. Schema and domain are viewed as parallel constructs, varying in their degree of development along three continua, the dimensions of expertise, practice, and investment, which include both topic and speaker characteristics. This perspective permits the following definition of the discourse domain: a topic area which is characterized by extensive knowledge (for which speakers possess an elaborated schema, and which they control completely), by current knowledge (which speakers use frequently in interaction, and about which they are confident), and by important knowledge (which is central to speakers' networks of schemata, and in which they are invested).

This definition sheds some light on the findings of the studies reviewed above: Learners show enhanced performance on major field topics because of a practice effect. Discourse domain topics are by definition current, and improved language production due to practice is to be expected. The other dimensions of the discourse domain reinforce this practice effect, because investment is likely to increase motivation to engage in interaction, and expertise may free learners' memory resources for attention to language. For these reasons, then, enhanced second language performance is predicted on discourse domain topics.

Empirical support for this prediction is provided in the following language examples from a case study designed to investigate features of talk on discourse domain topics (Whyte, 1992a). The subject (F), an international doctoral student in mathematics, demonstrated extensive, current, and important knowledge in talk with a naive native-speaking interlocutor (A), on a major field topic, the mathematical definition of chaos. Part of this episode is shown in example (1), where F responds to A's request for an explanation of chaos with highly structured talk. He begins with the intention of contrasting "chaos" with "deterministic behavior" but immediately realizes that his interlocutor is likely to need a gloss for the technical term *deterministic*. He begins the gloss, but is interrupted by a request for an example. Having completed both side sequences, F returns to his original plan, as indicated by "but what I was saying," and completes the intended contrast. He then goes on to give an example of waves breaking to illustrate his point. The underlined portions in example (1) show the argument structure.[1]

(1)

A . . . what's the definition of chaos?

F Oh it's hard to put in nonmathematical terms but, *chaos is the like um how something which, over, um, a certain period of time sounded and looked pr etty much deterministic*, that means if you know the state of something, at a given time, you can predict and, if you know some evolution, behavior, you can predict what the state will be at a later time

A /mhm/

A Like something like what, like a piece of matter? Just anything?

F /I dunno/

F This is the smallest, the the simplest physical system you can think about is something I dunno you take, in the gravity field you take a stone you throw it and it falls down and you know the laws

A /mhm/

F of gravitation and you can predict the movement if you know the initial position and whatever and you know the behavior and you know where the stone is at some time and you know what the speed is and, then you can predict what it will be at a later time and you can predict the position that it was. This is what is called the determining, the deterministic system, *so but what I was saying* it turns out that in the real world in physics, uh it can happen that over a small period of time, *a system a physical system looks did look developed pr etty much deterministic, and then, after a finite period of time, stops looking deterministic, and this is this is chaos* , um *to give you some sort of hokey example*, um, think about a a fluid, which is flowing, think about I dunno simple waves, uh on on a shore . . .

From this episode, it appears that domain talk is characterized by lengthy time at talk, including long turns, a finding that is consonant with the elaborated nature of the speaker's schema for the topic. The complexity and flexibility of the discourse domain schema is further revealed in the speaker's ability to follow a plan across intervening side sequences and to modify his contribution to fit his perception of his interlocutor's needs. Such flexibility implies a practice effect, supporting the inclusion of the notion of currency as a component of the discourse domain. Finally, the importance of the topic to the speaker can be inferred from the length of the turn and the obvious attempts to make the topic accessible to his interlocutor.

However, affective factors are also involved in domain talk. A speaker with more extensive knowledge of a topic than his interlocutor has higher status, which may lead to didactic talk. In example (1), F took the role of teacher, instructing A in the theory of chaos. Higher status may, however, make a speaker reluctant to engage a technical topic with a lay interlocutor, as occurred at the beginning of the same episode, shown in example (2). On four occasions during the 8-turn exchange, F attempts to close the episode, underlining his expert status by contrasting A's borrowing of a "high-tech" term with his need for a "nonmathematical" explanation, and showing great reluctance to engage a topic for which his interlocutor appears so unprepared. A is forced to take a low-status position - "I don't know anything about mathematics" - and to make a very direct appeal - "can you like try to explain it?" - before F finally consents to discuss the topic.

(2)

A So are you in the same, d'you study the same kind, are you in the same uh area as Ivan?

F Yeah we're in the same in the same field, *yeah, same sort of thing*

A Chaos, are you studying chaos?

F Oh, if you wanna, *if you like high-tech names, maybe*

A [laughs] He just kind of explain was tryin' to explain something to me, some math

F /there is/

A theory of chaos, I have actually no idea what he was talking about

F /this is, this is/

F There, there there is a connection with mathematical theory of chaos. That's not the main thing, but it really is connected to this, *yeah*.

A Well can you expan- can you like try to explain it I don' t know anything about mathematics, except arithmetic. So some kind of mathematical model about how things, how a random event occurs

/mhm/

or something? What is cha- what's the definition of chaos?

F *Oh it's hard to put in nonmathematical terms* but, . . .

These examples illustrate the importance of affective factors related to the cognitive dimension of the extent of knowledge present in a discourse domain. In example (2), F showed reluctance to engage the chaos topic belonging to his major field domain because of the difference in knowledge between his interlocutor and himself. Later, however, as was shown in example (1), he allowed himself to be placed in the role of teacher, another way to frame his greater knowledge in this area.

If this study tentatively identified discourse features related to dimensions of the discourse domain, it did not, however, elicit sufficient nondomain talk for comparison purposes. A second study designed to allow such comparison examined 4 midcareer professionals in interviews covering work and life domain topics, as well as the nondomain topics of a folk tale and arranging to view a videotape of the interview (Whyte, 1992b). Results of an analysis of fluency (time at talk, turn length, and hesitation) and grammatical accuracy (copula, noun marking, and past tense marking) revealed that two speakers showed differences in accuracy and fluency across domain and nondomain topics: Both were more accurate on domain topics, and one also produced more talk in his work domain than on other topics. However, perhaps more important than the results of this study were the methodological issues it raised.

Methodological considerations

The first problem concerns independent support for the domain and nondomain status of topics. In Whyte (1992b), the domain status of life talk was assumed, that of work talk was inferred from subjects' educational qualifications, professional experience, and career plans, and the nondomain character of the remaining topics was judged by the absence of such criteria. However, subjects sometimes responded to prompts intended to elicit nondomain talk by invoking domain topics. In example (3), Carl, a Czech psychiatrist, has been asked to relate a folktale from his country as a means of initiating a nondomain episode. Yet he relates the topic to his work domain by placing the narrative in a child psychology frame, focusing on children's reactions to the story and on the psychological reasons for these reactions. The underlined portions indicate such evaluative comments:

(3)

. . .

C . . . maybe uh you know you know uh the story about Li-little Red Riding Hood

J /yeah/ /yeah/

C about about l-little girl who uh-h-h mo- whose mother uh send her with some cake

during a Sunday
J /mhm/
C afternoon to uh her her grandmother she she has to uh go through a wood by the wood and uh
J /yeah/
C uh *it's a quite a-adventurous uh story* or the she's a very uh little girl and when she when she uh passed the wood and she checked the door of uh her grandmother she found finally woof uh coyote woof in the in the house of her grandmother so uh *there is a quite popular uh place of the story* when she's coming entering the house of her mother and uh grand-mother and uh uh she is looking at the bed uh where where
J /mhm/
C grandmother should lay and she saw that it' s not correct something's something something's
J /mhm/
C wrong because there's no no uh she grandum grandmother changed her face and so so *that is a popularpopular place of it and um and uh lot of childr en uh like to to uh to to replay this this*
J /that scene/
C *yeah this this scene this place of the story* and uh uh-h the-e-e repeat sentences as uh
/uh-huh/
C like uh oh my grandmother why why do you have so so uh \big\ eyes and why do you have so J
/uh-huh\/
C big teeth . . .
:
:
C *. . . it's quite aggressive and maybe therefore a lot of children uh like it to to uh. They know actually that the end is OK*
it's a happy end uh so they they
J /uh-huh uh-huh/
C *can uh spend maybe quite uh well emotional time better with playing about uh about the scene* where uh woof or uh coyote is, eating the grandmother . . .

By concentrating on the audience's reaction to the story rather than the actual sequence of events, the speaker moves from narrative to interpretation, and thus from neutral ground to his work domain. This example illustrates the perils of assigning nondomain topics by default. Like the food topic in Zuengler's (1989) study, the folktale topic in this study failed to elicit neutral talk. One way of avoiding this problem may be to ask subjects about their views on

potential neutral topics before recording.

There are a number of other topic-related variables to be taken into account in designing a study to test the discourse domain hypothesis. One is the cognitive complexity of topics: A number of studies have contrasted work domain (or major field) and life domain (or own culture, hobbies) with the aim of isolating domain-related variation (e.g., Cornu & Delahaye, 1987; Selinker & Douglas, 1985; Whyte, 1992a, 1992b). Because, however, these topics are likely to differ along the parameter of cognitive complexity, with life topics probably more "cognitively manageable" (Tapia, 1993) than work or research-related topics, these studies cannot claim that any variation detected is due solely to discourse domain effects. Another uncontrolled variable is task: Talking on different topics may mean changing modes, from the personal narrative requested by life domain prompts, to mini–lecture in the work-domain, or to apparently aimless conversation on assigned "neutral" topics (cf. Selinker & Douglas, 1985; Whyte, 1992a, 1992b; Zuengler, 1989; Zuengler & Bent, 1991). This factor, too, may contaminate data and confound results. A third relevant variable is that of context of situation, insofar as speakers' perceptions of the appropriateness of a given topic in the recording situation may vary. Some learners appear to view life domain topics as an invasion of privacy, and prefer to discuss work and studies with an unfamiliar interviewer; others are willing to discuss families and personal histories, but are reluctant to engage work domain topics with a nonspecialist interlocutor (Whyte, 1992a, 1992b).

A final methodological consideration involves the control of both the cognitive and the affective dimensions of the discourse domain. A strict test of the hypothesis requires the researcher to demonstrate that topic-related variation is attributable not just to more extensive knowledge on one topic compared to another, but rather to greater knowledge of *and* greater investment in that topic on the part of the learner. This requirement suggests a research design where invested subjects talking on domain and nondomain topics are compared with a control group of subjects talking on two neutral topics.

The present study aims to test the refined version of the discourse domain hypothesis outlined above. It starts from a definition of the discourse domain as a topic in which learners have expertise, investment, and practice, and it examines support for the prediction that learners will show enhanced production on such topics. In so doing, the study attempts to control for a number of variables which have clouded research results in this area to date.

METHOD

Subjects

Eight subjects were recruited from Levels 6 and 7 of the Intensive English Program in the Center for English Language Training at Indiana University on the basis of their availability for interview at the time of data collection. They were advanced learners of English who had been in the Program for 4-12 months and had TOEFL scores ranging from 470-580.

Topics

Subjects were interviewed by the researcher on two topics: Topic A, their major field, or

a topic they had selected for a class research paper or oral presentation assignment during the session before the interview, and Topic B, a neutral topic selected by the researcher from a Level 6 class textbook.

Independent support for the classification of topics as domain and nondomain was collected by questionnaire immediately before the interview. Subjects answered questions about their education and professional training, plans for study in the United States, and career goals. Their answers were used as an indication of expertise and investment in their major field topics. Subjects were also asked to select Topic A, described on the questionnaire as "your major field, or a topic you used for your Level 6 research paper or Level 7 oral presentation." Four subjects had graduate or other specialized training in their major fields, including related professional experience, plans to study at the graduate level in these fields in the United States, and the intention to pursue careers in these fields. All four selected their major field, which was also the topic of their research papers or of an oral presentation, as Topic A. These data are taken as independent confirmation of the domain status of the major field topic for those speakers, who are termed *invested* speakers in this study.

The remaining four subjects selected research paper or oral presentation topics for Topic A, and in three cases these topics did not coincide with their major fields. The fourth subject was an entering freshman intending to major in a field related to his Topic A; however, he had no prior training or professional experience in this field and was therefore not considered to have developed a mature discourse domain for this topic. On the basis of these data, talk on Topic A for these subjects is classified as nondomain talk; these subjects served as a control group, and are termed *uninvested* speakers.

Independent evidence for the nondomain status of Topic B for all subjects was established through an 8-item multiple choice section in the pre-interview questionnaire. These questions tested the extent, currency, and importance of subjects' knowledge of four topics chosen from the Level 6 reading/writing textbook: education, women's rights, democracy, and the media (Franks, 1990). The topic in which each subject demonstrated the least interest was selected as Topic B for that subject.

In this way, the study attempted to ensure uniformity of cognitive complexity, familiarity, and appropriateness to the situation across topics: All subjects had recently spent time reading, writing, and talking about their chosen Topic A in the context of working on their papers for the research class; Topic B was a topic of discussion in a reading/writing class. All eight subjects also knew the researcher as a teacher in their English program, and it was therefore expected that both topics would seem appropriate in an interview with her.

A final effort was made to ensure similar task demands across topics by imposing a problem-solution format on each topic. Subjects were given a prompt card with their chosen Topic A written on one side, and the assigned Topic B on the reverse. For each topic, the same two questions were also printed on the card: "What are some of the important problems or questions related to this topic?" and "what solutions or answers can be found for these questions?" Subjects were given a few minutes to consider the topics and to make notes on the card if they wished.

Details of subjects' backgrounds and interview topics are given in Table 1. Readers will notice a slight mismatch between groups, with the invested group a little older and more proficient than the control group, and all three female subjects in the study in the uninvested group.

Data collection

After completing the pre-interview questionnaire and spending a few moments prepar-

Table 1: Subjects' backgrounds and interview topics

INVESTED SUBJECTS	FL	JS	RF	TK	Group Mean
TOEFL	587	547	580	517	558
L1	Spanish (Panama)	Spanish (Colombia)	Spanish (Colombia)	Japanese	
GENDER	male	male	male	male	
AGE	25	26	29	23	26
MAJOR	law	dentistry	telecommunications	Shinto religion	
TOPIC A	takeover practices	gum disease	educational TV	life and death in Shinto	
TOPIC B	the media	women's rights	women's rights	the media	
UNINVESTED SUBJECTS	**AK**	**KH**	**KL**	**NY**	**Group Mean**
TOEFL	470	553	540	477	510
L1	Japanese	Korean	Swedish	Japanese	
GENDER	female	female	female	male	
AGE	24	22	25	23	24
MAJOR	music	English	nonstudent	mass communications	
TOPIC A	US civil rights	alcohol advertising	the Amish	racing sponsorship	
TOPIC B	the media	democracy	education	women's rights	

ing the two topics on the card, subjects underwent a 20-30-minute oral interview with the researcher, which was recorded on audio cassette. Each interview began with the warm-up question, "why did you come to Bloomington?" The question was intended both as an easy question, which subjects were likely to have rehearsed, and also as a check on the information provided about their major fields in the background questionnaire. The interviewer then invited the subject to talk about Topic A, followed by Topic B, using the questions on the prompt cards and other content questions when these were necessary to keep the conversation going.

After the interview, subjects completed a second questionnaire intended to verify the expected difference in domain status of the two interview topics. The questionnaire included 5 multiple choice items concerning the extent, currency, and importance of the topics, and a free response prompt asking subjects to comment on their performance, to be answered first for Topic A, then for Topic B.

ANALYSIS

Selection of measures to test the discourse domain hypothesis obviously depends on the researcher's interpretation of the "enhanced performance" predicted in domain talk. Much of the previous research on topic-related interlanguage variation has focused on qualitative discourse analysis (Selinker & Douglas, 1985, 1987b; Whyte, 1992a) and on quantitative measures of conversational involvement and dominance (Woken & Swales, 1987; Zuengler, 1989;

Zuengler & Bent, 1991). The present study combines examines quantitative measures, such as time at talk, in order to characterize the overall fluency of learners' production. However, it also includes an investigation of syntactic development, because it has been claimed that the discourse domain influences "the syntactic units of interlanguage development" (Selinker & Douglas, 1985, p. 199). The study goes on to provide a close qualitative analysis of the discourse organization of individual speakers on particular topics in an attempt to explain the patterns which emerge from the quantitative analysis.

Fluency

Four discourse variables were investigated by timing learner turns and dividing each into clauses. *Time at talk* for each subject was calculated as the total time spent by each subject on each topic, expressed as a percentage of the total interview talk by both speakers on that topic. *Mean turn length* was calculated by dividing the total time at talk of the learner by the number of learner turns.

Because both the measures of learner time at talk and mean turn length are to some extent dependent on the behavior of the interviewer (and not only the learner), it is important also to investigate other aspects of learner speech which are less interactionally determined. One such measure is the *mean number of clauses produced per minute* of speech, which provides an indication of speech rate in terms of the number of propositional units expressed in a given period of time. The number of clauses per minute is calculated by dividing the learner time at talk in seconds by the total number of clauses produced by the learner on each topic. A second measure of speech rate is simply the *mean number of words per minute*, which is calculated by dividing the total learner time at talk for each topic by the total number of words uttered.

Syntactic development

Following Bardovi-Harlig and Bofman's (1989) analysis of the syntactic accuracy and surface errors in the written compositions of advanced ESL learners, syntactic development is measured in terms of utterance complexity and error rate. Grammatical complexity is measured by the *number of clauses per t-unit*. Accuracy is measured by the *number of errors per clause*. Errors are classified as syntactic errors (including word order, absence of constituents, and sentence-combining), morphological errors (involving nominal and verbal morphology, determiners and articles, and prepositions), and lexical-idiomatic (or vocabulary) errors.

Discourse organization

Following Selinker and Douglas (1985, 1987b, 1989), discourse is compared across topics and across speakers by identifying "analogous rhetorical units." Fine-grained discourse analysis is used in the present study to support and amplify findings of the quantitative analyses of fluency and syntactic development.

RESULTS AND DISCUSSION

To support the prediction of enhanced performance in domain talk, invested subjects should show greater fluency on Topic A than Topic B. Similarly, in terms of syntactic development, their talk on Topic A should be characterized by greater complexity and lower error rates than talk on Topic B. These quantitative differences should be supported by qualitative differences in discourse organization across topics: In line with previous findings illustrated in examples (1) through (3), it is predicted that domain talk will show evidence of more planning (e.g., complex discourse structure), more personalization of the topic (e.g., self-reference, emotional reactions), and generally greater enthusiasm and communicative effort. These differences across topics for the invested group should be balanced by a lack of such variation in the control group.

Results indicate that only one invested speaker varied consistently across the domain and nondomain topics in terms of fluency, syntactic development, and discourse organization. Although results for the other three invested subjects are more ambiguous, none of the uninvested subjects showed variation which would indicate a domain effect. In the following, quantitative measures of fluency and syntactic development are discussed, followed by a qualitative analysis of the discourse organization shown by individual speakers.

Quantitative analysis

Measures of fluency and syntactic development are presented in Tables 2 and 3. Looking

Table 2: Fluency for invested and uninvested subjects

INVESTED SUBJECTS	FL		JS		RF		TK	
	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B
interview time	212	536	1324	427	547	663	748	645
learner time	1157	489	1239	389	507	569	565	573
% time at talk	96	91	94	91	93	86	76	89
turns	13	6	41	10	12	8	18	9
mean turn length	89	82	30	39	42	71	31	64
clauses	306	143	338	106	201	267	111	88
clauses per minute	16	18	16	16	24	28	12	9
words	2545	768	2354	688	1228	1419	627	579
words per minute	132	94	114	106	145	150	67	61

UNINVESTED SUBJECTS	AK		KH		KL		NY	
	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B
interview time	734	332	366	412	759	447	663	423
learner time	546	250	266	249	580	366	524	347
% time at talk	74	75	73	60	76	82	79	82
turns	26	17	16	14	16	8	21	10
mean turn length	21	15	17	18	36	46	25	35
clauses	123	63	54	64	202	124	91	57
clauses per minute	14	15	12	15	21	20	10	10
words	840	383	311	409	1324	737	713	453
words per minute	92	92	70	99	137	121	82	78

BEST COPY AVAILABLE

first at the invested subjects, greater fluency on Topic A is apparent for only one of the invested subjects, FL, a lawyer, who discussed first "takeover practices" (Topic A), followed by "the role of the media in our society" (Topic B). FL took more time at talk on Topic A, (96%) than on Topic B (91%) and also took longer turns (89 seconds on average for Topic A, 82 seconds for Topic B). Although he produced more clauses per minute on Topic B, the nondomain topic, he produced more words on Topic A (132 words per minute, compared with 94 words per minute on Topic B). FL also shows the clearest difference in grammatical complexity and

Table 3: Syntatic development figures for invested and univested subjects

INVESTED	FL		JS		RF		TK	
	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B
t-units	78	46	37	40	134	71	62	33
clauses	306	145	338	106	201	267	112	88
clauses per t-unit	2.62	2.01	2.09	2.52	1.55	2.24	1.54	1.35
errors	117	76	185	51	40	32	53	47
errors per clause	0.38	0.52	0.55	0.48	0.2	0.12	0.47	0.53
UNINVESTED	AK		KH		KL		NY	
	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B	Topic A	Topic B
t-units	78	46	37	40	134	71	62	33
clauses	123	63	54	64	202	124	91	57
clauses per t-unit	1.55	1.37	1.46	1.6	1.49	1.75	1.47	1.73
errors	111	43	37	39	79	47	83	68
errors per clause	0.9	0.68	0.68	0.61	0.39	0.38	0.91	1.19

accuracy across topics. On Topic A, he produced more complex speech (2.62 clauses per t-unit, compared with 2.01 clauses per t-unit on Topic B) and fewer errors, averaging just over 1 error in every 3 clauses in talk on Topic A as against 1 in 2 for Topic B.

The other three invested subjects, JS, RF, and TK, showed less clear patterns of fluency across topics. All produced longer turns on Topic B, which may be an effect of the ordering of topics in the interviews. All subjects spoke first on Topic A (in order to avoid the potential disruption of talk on the domain topic by poor performance on Topic B) and thus talk on the domain topic may have served as a warm-up for Topic B. If this is indeed the case, the domain effect shown by FL is all the more striking.

In terms of syntactic development, TK patterns parallel to FL, but the differences across topics are less marked. Given his youth and overall lower proficiency relative to the other invested subjects, it seems possible that Topic A is an emerging domain for TK, and that a stronger domain effect may appear in later stages of his interlanguage development. JS and RF, on the other hand, show greater syntactic development in talk on Topic B. This may be an ordering effect, as mentioned above, or it may be that Topic B did, in fact, serve as a prompt for domain talk, in spite of the precautions taken in the study to ensure a neutral topic.

For the uninvested group, less variation in fluency across topics is apparent, and no clear patterns emerge for any individual. This finding provides additional support for the interpretation that the higher fluency shown by FL on Topic A is indeed a discourse domain effect. Table 3 indicates that the control group also shows less variation in syntactic development across topics than was the case with the invested subjects. KH and KL produced more complex

speech on Topic B, but showed little difference in accuracy. AK and NY showed greater complexity and lower accuracy on the same topic, and their scores were the lowest of the eight subjects interviewed. It appears that these subjects were working at the limits of their competence. One might conclude that any topic-related variation is likely to be obscured by production problems in subjects at this level of proficiency.

This quantitative analysis has shown a clear domain effect for one invested speaker, FL, with perhaps a more modest effect for TK. No such effect was found for the remaining two invested speakers, JS and RF, and no pattern of variation emerged in the uninvested subjects.

Qualitative analysis

To present convincing evidence in support of the discourse domain hypothesis, it is instructive to supplement quantitative measures of fluency and syntactic development with fine-grained analysis of discourse organization. Once again, the aim is to show differences in the structure of discourse across topics for invested speakers, and an absence of such differences in the control group. In line with the quantitative findings, discourse analysis reveals that FL produced more effective discourse organization on Topic A than Topic B, constructing more structured and complex discourse in domain talk. JS and RF exhibited no such variation, producing similar discourse features on both topics. Although the fourth invested speaker, TK, was unable to structure his contributions for full communicative effect, his domain talk was characterized by greater effort to interact and to use his interlocutor's contributions to build further turns. The uninvested subjects did not show enhanced performance on either topic.

In the following discussion of these three patterns of behavior shown by the invested speakers, examples of domain talk by each speaker are compared with nondomain talk and with talk by uninvested speakers on both topics. Enhanced performance by FL in domain talk is shown in terms of more effective *planning*. Lack of variation across topics by JS and RF is explained with reference to their *personalization* of domain topics. Finally, modest domain effects in the speech of TK are identified in his use of *scaffolding* to pursue communication. Each feature of discourse organization is examined in turn.

The best evidence in support of the discourse domain hypothesis to emerge from this study is the superior fluency and syntactic development shown by FL on his major field topic, as compared to the uniform performance across topics by the uninvested subjects. An analysis of the transcripts should therefore provide examples where FL shows more extensive, practiced, and invested speech on Topic A than on Topic B, with the lengthy, structured turns identified with domain talk apparent in the major field topic (cf. example 1). The transcripts of the uninvested subjects should show no such pattern. Data from the interviews of FL and KL, the most fluent and accurate of the uninvested subjects, provide support for this claim. Comparable rhetorical units are ensured by selecting responses to an *or*-question prompt from the interviewer.

Planning

Evidence of planning by FL in domain talk can be seen in the long, structured turn and unambiguous discourse markers in example (4). Toward the end of talk on Topic A, "takeover practices," FL is asked why he chose the topic. His reply is highly structured, including a thesis statement, "in Panama it's not really a problem," support for this statement, and a clearly

marked example, "I will give you an example." This high level of organization gives the impression of advance planning, an impression which is further strengthened when the speaker continues with a rhetorical question which is not a response to an interlocutor query, but rather part of a preconceived expository plan. This digression on personal corporations is closed with a summary, again clearly introduced by the conjunction "so."

(4)

I So is this is this a topic that that uh is relevant in Panama or is this something you've got interested in when you got here?

FL [thesis] No, uh I was interesting to read about this topic because *in Panama it's not really a problem*

I /uh-huh/

FL [support] *and it's not really a problem because* our corporations, uh in Panama uh, are incorporated looking for other kind of services not really to develop each corporation as uh, active uh entity in the uh economic marketplace, OK.

I /mhm/

FL [example] *I will give you an example. Uh, an example with percentages.* Uh, in Panama more or less eighty percent of the corporations that are incorporated in Panama and that are sell to other countries to people who lives in other countries, eighty percent of them are used as personal corporations.

I /mhm/

FL [rhetorical question] *What do I mean with personal corporations ?*

FL Corporations that you incorporate just to put in name of those corporations your real property , your assets, and your money. In that way you can keep your money and your assets and your uh (brought?) uh properties in good uh you can put safe in name of a corporation or it' s not in your own name or it's not in the name of a corp- of in the case of American of the United States it' s not in name in the name of a corporation which was incorporated in United States and uh, because of that a corporation uh that the courts must get uh you know money or whatever if you are sue in the United States or in other countries

I /I see/

FL [summary] *So you buy a corporation in Panama and you put all your assets*

I /yeah/

FL *and all your real property in name of that corporation* a corporation in which . . .

I /mhm/

FL goes on to provide a full answer to the question: He became interested in takeover practices in the US because of their rarity in Panama, where most corporations are not active.

The complex and clearly marked discourse of talk on Topic A shown in example (4) gives an impression of planning and practice. It recalls the similarly complex discourse organization shown by F in domain talk in example (1). In contrast, FL's speech on Topic B, "the role of the media," appears less structured and more spontaneous, as is illustrated in example (5). Asked whether the media causes social inequality or simply advertises the fact, FL appears to be thinking on his feet, producing a chain of ideas, each point generating the next: The media affects us, its effect depends on individual programs, negative effects on children can be mitigated by parental supervision, and a change in attitude to the media is required if parents are to fulfill this role. It is hard to identify a thesis statement, far less support, examples, or a clear

conclusion. As an answer to the interviewer's question, it is in many ways less communicatively effective than the domain talk response in (4).

(5)

I You think it shows the unfairness or it actually causes unfairness?
FL I don't think that causes that it it it it causes uh directly . I think that it shows uh how the injustice is OK but because you can' t do anything about that then you began to interact in the same way. So it has two sides it's like try to say what what's first the egg or the chicken [point #1] that's the same question. Uh the real issue is that *media is there and it's affecting us*, every time, *in positive way*
I /yeah/
FL which with we have good programs *and in negative way* with bad programs.
I /uh-huh/
FL [point #2] So the uh the uh *the uh good or bad effects that you can get fr om media depends on the content* *the content of the programs* and the messages that media broadcasts every day
I /uh-huh/
FL not depends on media itself depends on the content of the programs that they broadcast every [point #3] day. Uh, *I think that we can uh deal with these (?) r eality of the media if we can get mor e supervision uh from from mother and father* from more parental supervision on children uh [point #4] trying to look forward the bad programs for for them. Uh, *of course we need a change in in* *attitude a change in mind in the whole society* because . . .

From examples (4) and (5), then, it seems that FL is able to produce more structured talk on the domain topic than on the neutral topic. No such difference is apparent in the data on KL, who talked first on her research paper topic, "the Amish," and then on "the role of education."

In example (6), from talk on the Amish topic, it is apparent that the speaker is aiming at fairly sophisticated rhetorical organization. Asked about the uncertain future of the Amish, she predicts that more will leave the community in the coming years, offering as support evidence of current problems surrounding "people in their own communities that have to work outside." To illustrate, she contrasts the "plain" lifestyle of the Amish in the past and the "decorations" common nowadays. She continues with a second, more specific problem, girls who "earn more money," and attempts to make a parallel contrast between the past and present. However, this fairly complex argument structure is not clearly marked: The thesis itself is not stated outright, but must be inferred by the interlocutor, the supporting arguments are not explicitly linked to the main argument, and there is no concluding summary to drive the point home. For these reasons, the contribution is fairly difficult to interpret as a response to the interviewer's question.

(6)

I And is it is the community dying out then or is the separate communities dying out?
KL [thesis] . . . maybe people would would prefer to live in the broader American society than They have problem but uh anyway it' s still it hasn't increased there's still around seven or eight percent that leaves the church \but\ it hasn't increased as much

now but I
I /uh-huhV
KL think they will face it more uh during the nineties
because they have
I /yeah/
KL [problem 1] problems *they say they see people in their own communities that have to work outside in our* *society*
I /uh-huh/
KL [before] and they change *and uh Amish people uh they live very plain* they are not allowed to have curtains pictures on the wall, the carpets, uh not not nothing that,
uh, uh, gl- no decorations
I /decorations/
KL [now] *and uh people that worked outside start to have small decorations* anyway and
[problem 2] *and then a lot of the girls then they earn more money* uh
[before] *before they had help each other* generations
I /mhm/
KL generation and if you were about seventeen eighteen and not married uh they don't marry before twenty uh you work in another family's house with housework and earn maybe
[now] fifty dollars a week *it's the same money you can earn in a day in the, world*
but now they have problems with it noone helps each other . . .
I /mhm/

Unlike the clearly marked rhetorical organization of FL's talk in example (4), the structure of KL's contribution in example (6) is not overtly marked. The listener might understand the speaker's argument more easily if each example of the Amish problems were marked as such, and the contrast between past and present indicated with phrases such as "in the past" or "until recently," and then "now" or "nowadays." Alternatively, the argument might have been structured chronologically, beginning with past practices and moving on to present difficulties as an indication of future problems. Such strategies would reflect the kind of advance planning associated with fully mastered and rehearsed domain topics; the lack of effective structuring devices in (6) is consonant with the nondomain status of the topic for KL.

A similar failure to mark discourse structure again characterizes talk by the same speaker on Topic B, "the role of education." In this instance, in response to a question concerning the West's responsibility to support education in developing countries, the speaker attempts to articulate a nuanced position: "we have to help them . . . but I think we have to be careful." Particularly striking in the excerpt is the unannounced example in line 7, where KL moves from an abstract explanation of her views to an impersonation of those who seek to exploit developing countries.

(7)

I Do you think the west has a responsibility then to help developing countries or do you think it's just a nice thing to do if we have money?
KL [position] Yeah but if the things can. *I think we have to do that*. I don't think that's a nice idea. But that [problem] uh uh, *I think we have done it wrong because we take our values, sh- from theirs*, and uh
then force them to want our way of living, o- our society uh
I /mm/

/I know what you're saying uh/
KL [example] *"I think you would like to have a tape r ecorder wouldn't you we can*
I
KL *make more tape recorders and send them there"*
I /uh-huh/
KL [position] *but I think we have to help them* no- no- not to make them uh benefits, uh profits money bu- that's a cycle circle too if we help them there they can get something and then we can give something it's not
I /mhm/
KL [solution] but *I think we have to be careful*

As in example (6), KL appears to have a complex argument in mind, but lacks the means to mark her argument in a nativelike manner and thus to convey her thoughts effectively.

From examples (4) through (7), it is apparent that whereas the domain speaker, FL, shows more sophisticated discourse organization on domain talk, the uninvested speaker, KL, shows similar patterns of complex organization yet a lack of discourse markers in talk on both topics. These data support the hypothesis that domain talk is characterized by highly structured, planned discourse.

Personalization

Quantitative analysis of the interviews by two invested speakers, JS and RF, revealed enhanced syntactic development on Topic B, suggesting that Topic B may have elicited domain talk for these speakers. Some evidence in support of this interpretation is provided by a close examination of the interview of RF, who appeared to be personally invested in both Topic A, "educational TV," and Topic B, "the role of women."

Example (8) is taken from talk on Topic A, where RF is asked to describe the training required for his job in educational media in Colombia. The frequency of personal reference is indicative of the personal relevance of this topic to the speaker.

(8)

RF Uh well uh, *when I began to work communication* I mean I *I've finished my undergraduate studies* and then *I went to work for the government* a kind of uh educational company a training company. . . . So when I began to work then *I was in charge of the communication department* so we began to think uh how to use media and we began to make a radio educational radio program and then after a couple of years we
I /mhm/
RF began to work on television when I mean I told you about the local channel . . . And for year *I studied there as an instructor*, so *I got my my degree* as an instructor in social communication that is my
I /mhm/
RF major as a as undergraduate student, and also *I got my certification as instructor.* So that's the training I have for education and *I've been teaching in a kind of technical institution* uh during six or seven
I /mhm/

RF years at night so I've been teaching for some years so that' s experience
I /uh-huh/

Less personal involvement would be expected in Topic B, if truly neutral talk had been elicited. On the contrary, however, RF appears highly motivated to discuss the topic of "the role of women," as the following example illustrates:

(9)

RF *it's really an interesting topic* and, I would say that we have to make a a di- a distinction because you can see this topic, a according to y-your cultural values, because for example in, we know that *in Colombia* we have I mean women women are of high right and things are- women are doing here, but something that we can we can see is that women in Colombia they still they still keep being women you know *I I I I'm gonna would like to explain* . . .

In fact, RF provides ample evidence of the relevance of this topic to his own life: "I have had many experiences," and "I had two bad experiences," which he goes on to detail. He even relates the topic to his own family:

(10)

RF . . . I think primarily in *my wife is working* and and I think that she has to keep working she' s studying too and I think that's really important for her and she has to do that as long as she
I /mhm/
RF wants but I think that *when we get our babies we have to think about tha* t and it is necessary to make make a stop for two or three years to take care of the babies and things like that so we should do it, because I think that's the most important thing for a couple I mean the babies . . .

In addition to being important to the speaker, the topic also seems current. RF twice mentions previous conversations with Americans on the same topic: "you know there's something that I told someone . . ." and "I have been talking to some American women . . . and they say that . . ." Both importance to the speaker and currency of the topic are, of course, defining characteristics of the discourse domain. A third piece of evidence that talk on Topic B is domain talk for RF is the extent of his knowledge of the topic. Example (11) shows that RF is indeed fairly well-informed about the legal aspects of women's rights in both Colombia and the United States:

(11)

RF . . . women in the USA haven't for example uh women who are working and when they uh get pregnant and have a baby as far as I know, they they can be sometimes they they fired
no in I
/in, Colombia?/
RF the USA they fired and so women after one month or forty-five days or two month they have to go back to work but in Colombia since the last year , we got a new law where women after when they get a ba- I mean if you are if if a woman get pregnant she cannot be fired during that time even after ninety days I mean ninety days after she she get a baby . . .

Examples (8) through (11) suggest that the nondomain topic prompt in this study does

not appear to have elicited nondomain talk for this speaker.[2] Discourse analysis reveals a high level of personalization of both topics, which is associated with domain talk. These examples recall example (3), where the narrative prompt intended to elicit neutral talk produced domain talk, a psychologist's view of Little Red Riding Hood. It is difficult to see how this methodological problem can be remedied, because once conversation begins some subjects seem to warm to topics they previously classified as uninteresting. (See Tapia, 1993, for a discussion of this phenomenon in relation to second language writing.) The most practicable solution seems to be to have subjects complete a post-interview questionnaire indicating their views on topics discussed; in this way, those who did become involved in the nondomain topic can be identified. Unfortunately, the questionnaire intended to serve such a purpose in the present study failed to elicit the necessary data.

Scaffolding

A final question raised in the quantitative analysis of the interviews concerned the possibility of an emerging domain for the invested subject, TK. This subject showed the lowest fluency and syntactic development of the invested group, but produced more clauses per minute and per t-unit in talk on Topic A than on Topic B, suggesting a nascent domain effect. Analysis of his transcript offers some support for this interpretation, with conversation apparently moving more smoothly on Topic A, "life and death in Shinto," than on Topic B, "the role of the media." No such pattern is apparent in the data on NY, who showed comparable levels of fluency and grammatical complexity with TK, and uniform performance across topics. Data from both subjects is shown in examples (12) through (16), where the common rhetorical element is a comprehension check on the part of the interviewer in which she paraphrases the subject's previous contribution.

In talk on his major field topic in example (12), TK has some difficulty explaining the Shinto view of death, but the interviewer is able to paraphrase accurately and TK is able to use her contribution to scaffold his next turn and continue the conversation:

(12)

TK . . .only gods know when he when somebody is born or somebody die dies so, I think it is, it can be said will gods' will go-gods' will, uh, uh everybody has to follow gods' will or, not not has to follow but uh nobody can uh. See future or yeah
yeah,

I /right/ /like destiny?/ /yeah/

TK but nobody-hh know what what uh god gods' will for him so he can decide he can decide what his destiny what he, uh wants to have what his. Role uh his no his uh
yeah uh

I /his role? Is that what you said?/

I *Let me see if I understand. You're saying that*, uh only the gods know *what exactly will happen to you and because you don't know then you have some freedom to choose what you will do*

TK /ah yes/

I right, yeah

TK /mhm/
TK Yeah, uh, god, uh only uh nobody can choose family or something it' s very important for people, uh, it's uh gods' will uh, so in my case, uh my I was born and as uh Shinto priest . . .
I /right/

In talk on the nondomain topic, however, TK is not able to use the interviewer's contribution in the same way. In example (13), instead of building on the notion that television stations "don't care whether it's a good program or not," TK allows the interviewer paraphrase to bring closure to the topic. Similarly in example (14), TK accepts the vocabulary items "comedians" and "imitate" suggested by the interviewer, but appears unable to use them to build a further contribution.

(13)

TK . . . uh television stations, uh doesn' t care about quality of programs they, they just I
/mhm/
TK need a high, high how to say uh percentage of uh, how to say , uh they just care about their sponsors advertising so
I /right advertising/ /yeah/

I *So they want to know how many people ar e watching but they don't care, whether*
TK /ah yes/
I *it's a good program or not* yeah
TK /yeah/

(14)

TK they use f-family, comedians but they are not good they are they use very stupid
I /mhm/
TK words or something and uh I like them but but it's I think it's problem uh
I /yeah/ /yeah/
TK the language Japanese Japanese language how to say Japanese Japanese

I /mhm/
/words?/
TK words? (??) broken?
I /expressions?/
I *Ah they're changing the language*? *The the comedians have an influence on the Japanese*
TK /uh-huh/
I *that people speak*?
TK Not only comedians but, uh because of TV programs and uh so many
I /yeah/
I *Because people imitate the way the language is used on television* ?
TK Uh sometimes people imitate but, uh before they notice they uh they use strange Japanese
. . .

Unlike his performance on Topic A, shown in example (12), on Topic B, shown in (13) and (14), TK appears unable either to construct a coherent turn independently, or to use the interviewer paraphrase constructively. Note, too, that the interviewer's contributions in (13) and (14) are inferences rather than paraphrases, and they take the form of questions rather than statements, indicating that TK's production on this topic is less easily comprehensible.

TK's less successful performance on the neutral topic is similar to the talk produced by NY on both topics. On Topic A, "Racing sponsorship," shown in example (16), the speaker argues that some drivers become Formula One competitors because of their ability to raise sponsorship, rather than their driving ability. The interviewer's attempt to encourage him to expand on this notion is met with closure.

(15)

NY . . . I like Formula One and there some of that kind of driver I mean uh he, the reason the reason why he can be uh Formula One racer is only bringing the money to the team uh there are some, uh very bad I
/wow/
NY and uh, I think they are, uh, if, they are that that kind of driver uh a lot of people are not interested in Formula One because they are just it' s kind of a taxi driver racing team it will be a rent-a-car company [laughs]
I *I see so it has a negative effect on the sport in general*
NY Yeah I think it's very negative

A parallel example of topic closure occurs in talk on Topic B, "the role of women," shown in example (17).

(16)

I So do you think there are problems in Japanese society do you think maybe other people don' t think the same as you?
NY Uh I think I think uh the position of woman is still under the man uh because, so,
I /yeah/
NY al- although sh- she wa- one woman apply w- apply the job apply the job she refuse I
/uh-huh/
NY refused refused by uh for only, re- reason is only she just women women
:
:
NY Mm, but, but I think uh, but man' s position woman's position is getting close I think uh
I
/mhm yeah/

I *So do you think it should be exactly equal men and women should have exactly* ?
NY Yeah yeah I think have exactl- it should be exactly same yeah
I /uh-huh/

BEST COPY AVAILABLE

Instead of using the interviewer prompt to clarify the argument and to permit further elaboration, as TK was able to do in his major field (example 12), NY takes his interlocutor's contribution as evidence that she has understood his point, and that he need not elaborate further.

This section on discourse organization across topics has shown that differences in fluency and syntactic development indicated by the quantitative measures are borne out, and in some cases motivated, by an investigation of learner discourse on these topics. FL, the only speaker in the study to reveal clear domain-related differences across topics, showed more complex and more clearly marked discourse organization on his major field topic than on the neutral topic; the significance of this finding was supported by the absence of such differences in the production of the uninvested speaker, KL. A similar finding emerged in the comparison of TK's performance across topics with that of NY: The invested speaker, TK, appeared better able to use his interlocutor's turns to build his own contributions in talk on his major field than on the neutral topic. Once again, the same was not true of the control subject, NY. Finally, the analysis of the discourse of RF on each topic suggested that the neutral prompt failed to elicit neutral talk. This speaker used ample personal reference in talk on both his major field and the role of women, indicating that he may have developed discourse domains for both topics.

CONCLUSION

This study provides a degree of support for the discourse domain hypothesis of interlanguage variation. One speaker, FL, showed a striking difference in both fluency, syntactic development, and discourse organization across domain and nondomain talk, while another, TK, showed signs of an emerging domain. Patterns of language behavior for the uninvested group did not show clear differences across topics, increasing confidence that the study does in fact tap domain-related differences in performance for the invested subjects, rather than general topic effects.

However, two of the invested subjects showed enhanced performance on the topic intended to elicit nondomain talk. RF and JS showed greater grammatical complexity and accuracy, and possibly also greater fluency, on Topic B. Topic B for both speakers was the role of women in society, and it may be that talk recorded on this topic was not nondomain talk at all, in spite of the precautions taken to ensure a neutral topic. The data samples from the interview of RF, shown in examples (8) through (11), support the interpretation that both Topic A and Topic B were domain topics for this speaker. Another possible explanation for the differences in performance across the four invested subjects is that *not all* learners develop discourse domains for particular topics. Thus it is possible that the interlanguages of the subjects JS and RF are not sensitive to domain-related differences, and that the differences detected in this study are general topic effects. This is clearly a problem of research design to be remedied in future studies: An improved postinterview questionnaire should provide the relevant evidence.

The uninvested subjects showed in general less variation across topics than the invested group. They also, however, performed at lower levels of fluency and grammatical complexity and accuracy, which limits their value as a control group. While it would appear to be a rela-

tively simple matter to obtain more closely matched groups, my experience with data collection for a larger, follow-up study suggests that uninvested subjects tend to be less proficient than their invested counterparts. Of the students who select a research paper topic within their major field, and are therefore expected to be invested subjects, the more advanced learners (as measured by TOEFL score) indicate high investment in that topic on the post-interview questionnaire, whereas the less advanced learners do not. Similarly, of those students who select a research paper topic outside their major field, and who are thus expected to be assigned to the uninvested group, the more advanced learners tend to indicate that they are strongly invested in the topic, while those who are less proficient do not.

Thus this study raises a number of methodological issues to be addressed in future research. In spite of the somewhat ambivalent nature of the findings which have emerged, however, the study does provide important indications about the nature of the discourse domain and its effect on second language production. As is so often the case in second language research, it is now necessary to collect more data on more subjects in order to obtain a clearer picture of the possible relationship between the discourse domain and second language acquisition.

ACKNOWLEDGEMENTS

I am grateful to my adviser, Kathleen Bardovi-Harlig, for her guidance and inspiration with this dissertation pilot. I also thank Beverly Hartford for encouragement in the early stages of this project, Richard Young for insightful comments on its theoretical basis, and Roger Farr for help with research design.

NOTES

[1] The transcription conventions are as follows:

backchanneling / /

F . . . these two years are only mathematics and physics. So that's
. . . B /mhm/

overlapping speech\ \
\ \

A What did you do \in the military?\
F \in Nancy\ I was uh

latching |
|

F Sol

B [You sit around and you

action [ ]

F Oh, if you wanna, if you like high-tech names, maybe
A [laughs] He just kind of explain-

short pause ,

longer pause .

material excerpted from turn . . .

material from several turns excerpted :
:

[2] Similar examples can be identified in the transcript of JS, but are not included for reasons of space.

REFERENCES

Bardovi-Harlig, K., & Bofman, T. (1989). Attainment of syntactic and morphological accuracy by advanced language learners. *Studies in Second Language Acquisition, 11*, 17-34.

Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology*. Cambridge: The University Press.

Briggs, S. (1987). When course success varies from discourse success. *English for Specific Purposes Journal, 6*, 153-156.

Cornu, A. M., & Delahaye, M. (1987). Variability in interlanguage reconsidered: LSP vs. non-LSP talk. *English for Specific Purposes Journal, 6*, 145-151.

Franks, M. (1990). *Writing as thinking: A guided process approach*. Englewood Cliffs, NJ: Prentice-Hall.

Selinker, L., & Douglas, D. (1985). Wrestling with "context" in interlanguage theory. *Applied Linguistics, 6*, 190-204.

Selinker, L., & Douglas, D. (Eds.). (1987a). Interlanguage and LSP. *English for Specific Purposes Journal, 6* (2).

Selinker, L., & Douglas, D. (1987b). The problem of comparing 'episodes' in discourse domains in interlanguage studies. *Proceedings of the Third Eastern States Conference on Linguistics* (pp. 467-478). Columbus, OH: Ohio State University Press.

Selinker, L., & Douglas, D. (1989). Research methodology in contextually-based second language research. *Second Language Research, 5*, 93-126.

Skelton, J., & Pindi, M. (1987). Acquiring a new context: Zairean students struggle with the academic mode. *English for Specific Purposes Journal, 6*, 121-131.

St. John, M. J. (1987). Writing processes of Spanish scientists publishing in English. *English for Specific Purposes Journal, 6*, 113-120.

Tapia, E. (1993). *Cognitive Demand as a Factor in Interlanguage Syntax: A Study in Topics and Texts*. Unpublished doctoral dissertation, Indiana University.

Whyte, S. (1992a). Discourse domains revisited: Expertise and investment in conversation. In L. Bouton & Y. Kachru (Eds.), *Pragmatics and language learning* (Vol. 3, pp. 81-103). Urbana-Champaign, IL: DIEL,University of Illinois.

Whyte, S. (1992b, April). *Language in context: The effect of personal investment on talk*. Paper presented at 6th Annual International Conference on Pragmatics and Language Learning, Urbana-Champaign, IL.

Woken, M., & Swales, J. (1989). Expertise and authority in native-non-native conversations: The need for a variable account. In S. Gass, C. Madden, D. Preston, & L. Selinker (Eds.), *Variation in second language acquisition: Discourse and pragmatics* (pp. 211-227). Clevedon, UK: Multilingual Matters.

Zuengler, J. (1989). Performance variation in NS-NNS interactions: Ethnolinguistic difference or discourse domain? In S. Gass, C. Madden, D. Preston, & L. Selinker (Eds.), *Variation in second language acquisition: Discourse and pragmatics* (pp. 228-244). Clevedon, UK: Multilingual Matters.

Zuengler, J., & Bent, B. (1991). Relative knowledge of content domain: An influence on native-non-native conversations. *Applied Linguistics, 12*, 397-451.